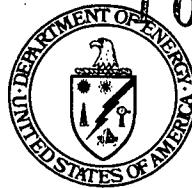




Department of Energy

Ohio Field Office
Fernald Area Office
P. O. Box 538705
Cincinnati, Ohio 45253-8705
(513) 648-3155



OCT 14 1997
DOE-0032-98

Mr. James A. Saric, Remedial Project Manager
U.S. Environmental Protection Agency
Region V-SRF-5J
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

Mr. Tom Schneider, Project Manager
Ohio Environmental Protection Agency
401 East 5th Street
Dayton, Ohio 45402-2911

Dear Mr. Saric and Mr. Schneider:

WASTE ACCEPTANCE CRITERIA REPORT ON AREA 1 PHASE I EAST IMPACTED STOCKPILE

The Department of Energy (DOE) has completed analyzing soil samples for total uranium and technetium-99 representing the Area 1 Phase I East Impacted Stockpile. This stockpile has an estimated volume of 30,300 yd³ and was generated as a result of excavating approximately 6 inches of surface soil from 46 acres of lightly impacted property that is located east of the North Entrance Road on the Fernald Environmental Management Project (FEMP). A report titled Waste Acceptance Criteria Attainment Report, Area 1 Phase I, Eastern Portion was submitted to the Environmental Protection Agency (EPA) in conjunction with the Area 1 Phase I Certification Report on July 1, 1997.

Included in this report were total uranium analytical results for 48 soil samples that were obtained in-situ from the 0 to 6" increment of soil designated for the East Impacted Stockpile prior to excavation. After reviewing the document, the EPA and DOE jointly agreed that additional soil samples (25 samples, including a duplicate) be obtained from the Area 1 Phase I East Stockpile in a random manner using the Geoprobe® and analyzed for both total uranium and technetium-99.

This sampling was performed on August 27, 1997, according to the Project Specific Plan, Sampling of Area 1 Phase I East Impacted Soil Stockpile for WAC Attainment Verification, Revision 0. A total of 25 soil samples were obtained which were split with Ohio Environmental Protection Agency (OEPA) representatives. The analytical results for total uranium from these newly obtained soil samples were combined with the previous total

uranium data, and the amalgamated East Impacted Stockpile total uranium data set was then subjected to standard statistical analysis. The FEMP samples were analyzed for technetium-99 on-site using a gas proportional counting method and incorporating a spike recovery step.

Total Uranium Results

As discussed with the U.S. Environmental Protection Agency (U.S. EPA) and OEPA on August 6, 1997, the 99.99th percentile of the distribution of the previous total uranium data is below the On-Site Disposal Facility (OSDF) WAC concentration of 1,030 ppm. After incorporating the new total uranium data, the combined total uranium data set could not be defined as representing either a normal or lognormal distribution so calculations were performed using both assumptions.

The results of these calculations are presented on the enclosed table. The highest result was 63 ppm for total uranium which is over an order of magnitude lower than the WAC concentration. One sample (200307521) had a result of 2.47 ppm total uranium which seemed unusually low, but laboratory results were checked and the concentration was verified. The results indicate that even using the most conservative assumption (lognormal distribution) the total uranium in the Area 1 Phase I East Impacted Soil Stockpile at the 99.99th percentile of the distribution is less than 400 ppm, compared to the total uranium OSDF WAC of 1,030 ppm.

Technetium-99 Results

Soil samples obtained from the East Impacted Stockpile were analyzed on-site for technetium-99. The current analytical method has been improved in the past two years by incorporating a spiked and unspiked aliquot for each sample in order to determine technetium-99 recovery. This minimizes the possibility of a false positive analysis, which was suspected as a problem in the past. Technetium-99 soil standards of 5 pCi/g and 30 PCi/g have also been obtained and are used now to verify laboratory method results.

Of the 25 soil samples submitted for technetium-99 analysis, there were no detections above 1.4 pCi/g. This maximum value is more than 20 times lower than the technetium-99 WAC of 29 pCi/g. Only five of the 25 samples were above the method detection limit meaning that 20 of the 25 results can be considered non-detects. Also, in every case the total propagated uncertainty was larger than the reported concentration. For these reasons, it was concluded that performing statistics on the technetium results was not appropriate.

Given the adequacy of the number of physical samples representing the East Impacted Stockpile and the statistics on the analytical results, DOE concludes this stockpile meets the OSDF WAC for total uranium and technetium-99 and can be designated for placement on the OSDF liner before the end of this calendar year.

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If you have additional questions regarding this issue, please contact Kathleen Nickel at (513) 648-3166.

Sincerely,



Johnny W. Reising
Fernald Remedial Action
Project Manager

FEMP:Nickel

Enclosure: As Stated

cc w/enc:

N. Hallein, EM-42/CLOV
K. Miller, DOE-EML
G. Jablonowski, USEPA-V, 5HRE-8J
R. Beaumier, TPSS/DERR, OEPA-Columbus
M. Rochette, OEPA-Columbus
T. Schneider, OEPA-Dayton (total 3 copies of enc.)
F. Bell, ATSDR
D.S. Ward, HSI Geotrans
R. Vandegrift, ODOH
D. Carr, FDF/52-2
J. D. Chiou, FDF/52-5
T. Hagen, FDF/65-2
J. Harmon, FDF/90
AR Coordinator, FDF/78
EDC,FDF/52-7

cc w/o enc:

R. Heck, FDF/2
S. Hinnefeld, FDF/2

1040

**Analytical Results from August 27th Sampling
of A1PI East Impacted Stockpile**

DATE 25-SEP-97
TIME 10:24:24

SUMMARY REPORT

PAGE 1

RELEASE NUMBER : 1000014918
PROJECT NAME : 50.03.40.09 A1PI E STOCKPILE WAC VERIF

LAB SAMPLE ID	USER SAMPLE ID	SAMPLE POINT	SUFFIX	COMPONENT	RESULT	UNITS	LQ	DATE SAMPLED	ASL
URA 200307505	A1PIEISS-A-1-R	A1PIEISS-A-1-R		MOISTURE	20.5	PERCENT		27-AUG-97	B
RAD 200307505	A1PIEISS-A-1-R	A1PIEISS-A-1-R		TECHNETIUM 99	0.24	pCi/g	U	27-AUG-97	B
URA 200307505	A1PIEISS-A-1-R	A1PIEISS-A-1-R		URANIUM	24.5	ppm dry		27-AUG-97	B
URA 200307506	A1PIEISS-A-3-R	A1PIEISS-A-3-R		MOISTURE	20.9	PERCENT		27-AUG-97	B
RAD 200307506	A1PIEISS-A-3-R	A1PIEISS-A-3-R		TECHNETIUM 99	0.46	pCi/g dry	U	27-AUG-97	B
URA 200307506	A1PIEISS-A-3-R	A1PIEISS-A-3-R		URANIUM	10.6	ppm dry		27-AUG-97	B
URA 200307507	A1PIEISS-A-4-R	A1PIEISS-A-4-R		MOISTURE	21.4	PERCENT		27-AUG-97	B
RAD 200307507	A1PIEISS-A-4-R	A1PIEISS-A-4-R		TECHNETIUM 99	0.099	pCi/g dry	U	27-AUG-97	B
URA 200307507	A1PIEISS-A-4-R	A1PIEISS-A-4-R		URANIUM	13.1	ppm dry		27-AUG-97	B
URA 200307508	A1PIEISS-B-1-R	A1PIEISS-B-1-R		MOISTURE	18.5	PERCENT		27-AUG-97	B
RAD 200307508	A1PIEISS-B-1-R	A1PIEISS-B-1-R		TECHNETIUM 99	0.40	pCi/g dry	U	27-AUG-97	B
URA 200307508	A1PIEISS-B-1-R	A1PIEISS-B-1-R		URANIUM	15.1	ppm dry		27-AUG-97	B
URA 200307509	A1PIEISS-B-2-R	A1PIEISS-B-2-R		MOISTURE	19.5	PERCENT		27-AUG-97	B
RAD 200307509	A1PIEISS-B-2-R	A1PIEISS-B-2-R		TECHNETIUM 99	0.28	pCi/g dry	U	27-AUG-97	B
URA 200307509	A1PIEISS-B-2-R	A1PIEISS-B-2-R		URANIUM	15.0	ppm dry		27-AUG-97	B
URA 200307510	A1PIEISS-B-3-R	A1PIEISS-B-3-R		MOISTURE	19.8	PERCENT		27-AUG-97	B
RAD 200307510	A1PIEISS-B-3-R	A1PIEISS-B-3-R		TECHNETIUM 99	0.46	pCi/g dry	U	27-AUG-97	B
URA 200307510	A1PIEISS-B-3-R	A1PIEISS-B-3-R		URANIUM	18.1	ppm dry		27-AUG-97	B
URA 200307511	A1PIEISS-B-4-R	A1PIEISS-B-4-R		MOISTURE	22.3	PERCENT		27-AUG-97	B
RAD 200307511	A1PIEISS-B-4-R	A1PIEISS-B-4-R		TECHNETIUM 99	0.72	pCi/g dry		27-AUG-97	B
URA 200307511	A1PIEISS-B-4-R	A1PIEISS-B-4-R		URANIUM	23.7	ppm dry		27-AUG-97	B
URA 200307512	A1PIEISS-F-1-R	A1PIEISS-F-1-R		MOISTURE	15.9	PERCENT		27-AUG-97	B
RAD 200307512	A1PIEISS-F-1-R	A1PIEISS-F-1-R		TECHNETIUM 99	0.22	pCi/g dry	U	27-AUG-97	B
URA 200307512	A1PIEISS-F-1-R	A1PIEISS-F-1-R		URANIUM	12.2	ppm dry		27-AUG-97	B
URA 200307513	A1PIEISS-F-2-R	A1PIEISS-F-2-R		MOISTURE	9.7	PERCENT		27-AUG-97	B
RAD 200307513	A1PIEISS-F-2-R	A1PIEISS-F-2-R		TECHNETIUM 99	0.16	pCi/g dry	U	27-AUG-97	B
URA 200307513	A1PIEISS-F-2-R	A1PIEISS-F-2-R		URANIUM	8.77	ppm dry		27-AUG-97	B
URA 200307514	A1PIEISS-F-4-R	A1PIEISS-F-4-R		MOISTURE	21.0	PERCENT		27-AUG-97	B
RAD 200307514	A1PIEISS-F-4-R	A1PIEISS-F-4-R		TECHNETIUM 99	0.48	pCi/g dry		27-AUG-97	B
URA 200307514	A1PIEISS-F-4-R	A1PIEISS-F-4-R		URANIUM	26.9	ppm dry		27-AUG-97	B
URA 200307515	A1PIEISS-D-1-R	A1PIEISS-D-1-R		MOISTURE	20.9	PERCENT		27-AUG-97	B
RAD 200307515	A1PIEISS-D-1-R	A1PIEISS-D-1-R		TECHNETIUM 99	-0.13	pCi/g dry	U	27-AUG-97	B
URA 200307515	A1PIEISS-D-1-R	A1PIEISS-D-1-R		URANIUM	16.6	ppm dry		27-AUG-97	B
URA 200307516	A1PIEISS-D-2-R	A1PIEISS-D-2-R		MOISTURE	20.8	PERCENT		27-AUG-97	B
RAD 200307516	A1PIEISS-D-2-R	A1PIEISS-D-2-R		TECHNETIUM 99	0.059	pCi/g dry	U	27-AUG-97	B
URA 200307516	A1PIEISS-D-2-R	A1PIEISS-D-2-R		URANIUM	14.6	ppm dry		27-AUG-97	B
URA 200307517	A1PIEISS-D-3-R	A1PIEISS-D-3-R		MOISTURE	20.2	PERCENT		27-AUG-97	B
RAD 200307517	A1PIEISS-D-3-R	A1PIEISS-D-3-R		TECHNETIUM 99	0.11	pCi/g dry	U	27-AUG-97	B
URA 200307517	A1PIEISS-D-3-R	A1PIEISS-D-3-R		URANIUM	9.47	ppm dry		27-AUG-97	B
URA 200307518	A1PIEISS-D-4-R	A1PIEISS-D-4-R		MOISTURE	21.1	PERCENT		27-AUG-97	B
RAD 200307518	A1PIEISS-D-4-R	A1PIEISS-D-4-R		TECHNETIUM 99	0.41	pCi/g dry	U	27-AUG-97	B
URA 200307518	A1PIEISS-D-4-R	A1PIEISS-D-4-R		URANIUM	27.8	ppm dry		27-AUG-97	B
URA 200307519	A1PIEISS-E-2-R	A1PIEISS-E-2-R		MOISTURE	20.6	PERCENT		27-AUG-97	B
RAD 200307519	A1PIEISS-E-2-R	A1PIEISS-E-2-R		TECHNETIUM 99	0.35	pCi/g dry	U	27-AUG-97	B
URA 200307519	A1PIEISS-E-2-R	A1PIEISS-E-2-R		URANIUM	12.2	ppm dry		27-AUG-97	B
URA 200307520	A1PIEISS-E-3-R	A1PIEISS-E-3-R		MOISTURE	21.3	PERCENT		27-AUG-97	B
RAD 200307520	A1PIEISS-E-3-R	A1PIEISS-E-3-R		TECHNETIUM 99	0.39	pCi/g dry	U	27-AUG-97	B

Your Selection Criteria Was:

Release Number: 1000014918 Component: %-LR Submission ID: % Project Name: %
 From Received Date: Display Text? N Include Blanks? N

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DATE 25-SEP-97
TIME 10:24:24

SUMMARY REPORT

PAGE 2

RELEASE NUMBER : 1000014918
PROJECT NAME : 50.03.40.09 A1PI E STOCKPILE WAC VERIF

LAB	SAMPLE ID	USER SAMPLE ID	SAMPLE POINT	SUFFIX	COMPONENT	RESULT	UNITS	LQ	DATE	SAMPLED	ASL
URA	200307520	A1PIEISS-E-3-R	A1PIEISS-E-3-R		URANIUM	10.5	ppm dry		27-AUG-97	B	
URA	200307521	A1PIEISS-E-4-R	A1PIEISS-E-4-R		MOISTURE	21.4	PERCENT		27-AUG-97	B	
RAD	200307521	A1PIEISS-E-4-R	A1PIEISS-E-4-R		TECHNETIUM 99	-0.40	pCi/g dry	U	27-AUG-97	B	
URA	200307521	A1PIEISS-E-4-R	A1PIEISS-E-4-R		URANIUM	2.47	ppm dry		27-AUG-97	B	
URA	200307522	A1PIEISS-C-1-R	A1PIEISS-C-1-R		MOISTURE	17.1	PERCENT		27-AUG-97	B	
RAD	200307522	A1PIEISS-C-1-R	A1PIEISS-C-1-R		TECHNETIUM 99	0.68	pCi/g dry		27-AUG-97	B	
URA	200307522	A1PIEISS-C-1-R	A1PIEISS-C-1-R		URANIUM	15.3	ppm dry		27-AUG-97	B	
URA	200307523	A1PIEISS-C-2-R	A1PIEISS-C-2-R		MOISTURE	14.3	PERCENT		27-AUG-97	B	
RAD	200307523	A1PIEISS-C-2-R	A1PIEISS-C-2-R		TECHNETIUM 99	0.63	pCi/g dry		27-AUG-97	B	
URA	200307523	A1PIEISS-C-2-R	A1PIEISS-C-2-R		URANIUM	18.2	ppm dry		27-AUG-97	B	
URA	200307524	A1PIEISS-C-3-R	A1PIEISS-C-3-R		MOISTURE	20.5	PERCENT		27-AUG-97	B	
RAD	200307524	A1PIEISS-C-3-R	A1PIEISS-C-3-R		TECHNETIUM 99	0.44	pCi/g dry	U	27-AUG-97	B	
URA	200307524	A1PIEISS-C-3-R	A1PIEISS-C-3-R		URANIUM	14.1	ppm dry		27-AUG-97	B	
URA	200307525	A1PIEISS-C-4-R	A1PIEISS-C-4-R		MOISTURE	20.7	PERCENT		27-AUG-97	B	
RAD	200307525	A1PIEISS-C-4-R	A1PIEISS-C-4-R		TECHNETIUM 99	0.35	pCi/g dry	U	27-AUG-97	B	
URA	200307525	A1PIEISS-C-4-R	A1PIEISS-C-4-R		URANIUM	12.2	ppm dry		27-AUG-97	B	
URA	200307526	A1PIEISS-F-1-R	A1PIEISS-F-1-R		MOISTURE	15.1	PERCENT		27-AUG-97	B	
RAD	200307526	A1PIEISS-F-1-R	A1PIEISS-F-1-R		TECHNETIUM 99	0.32	pCi/g dry	U	27-AUG-97	B	
URA	200307526	A1PIEISS-F-1-R	A1PIEISS-F-1-R		URANIUM	10.5	ppm dry		27-AUG-97	B	

66 RECORDS PRINTED

END OF REPORT

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DATE 25-SEP-97
TIME 10:24:50

SUMMARY REPORT

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PAGE 1

RELEASE NUMBER : 1000014919
PROJECT NAME : 50.03.40.09 A1PI E STOCKPILE WAC VERIF

LAB SAMPLE ID	USER SAMPLE ID	SAMPLE POINT	SUFFIX	COMPONENT	RESULT	UNITS	LQ	SAMPLED	DATE	ASL
URA 200307527	A1PIEISS-A-2-R	A1PIEISS-A-2-R		MOISTURE	20.8	PERCENT			27-AUG-97	B
RAD 200307527	A1PIEISS-A-2-R	A1PIEISS-A-2-R		TECHNETIUM 99	1.4	pCi/g dry			27-AUG-97	D
URA 200307527	A1PIEISS-A-2-R	A1PIEISS-A-2-R		URANIUM	19.3	ppm dry			27-AUG-97	B
URA 200307528	A1PIEISS-F-3-R	A1PIEISS-F-3-R		MOISTURE	18.8	PERCENT			27-AUG-97	B
RAD 200307528	A1PIEISS-F-3-R	A1PIEISS-F-3-R		TECHNETIUM 99	1.2	pCi/g dry			27-AUG-97	D
URA 200307528	A1PIEISS-F-3-R	A1PIEISS-F-3-R		URANIUM	7.68	ppm dry			27-AUG-97	B
URA 200307529	A1PIEISS-E-1-R	A1PIEISS-E-1-R		MOISTURE	21.2	PERCENT			27-SEP-97	B
RAD 200307529	A1PIEISS-E-1-R	A1PIEISS-E-1-R		TECHNETIUM 99	0.60	pCi/g dry	U		27-SEP-97	D
URA 200307529	A1PIEISS-E-1-R	A1PIEISS-E-1-R		URANIUM	13.5	ppm dry			27-SEP-97	B

Your Selection Criteria Was:

Release Number: 1000014919 Component: %-LR Submission ID: % Project Name: %
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7

KINSATE

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PAGE 1

DATE 25-SEP-97
TIME 12:25:41

SUMMARY REPORT

RELEASE NUMBER : 1000014869
PROJECT NAME : 50.03.40.09 A1PI E STOCKPILE WAC VERIF

LAB SAMPLE ID	USER SAMPLE ID	SAMPLE POINT	SUFFIX	COMPONENT	RESULT	UNITS	LO	SAMPLED	DATE	ASL
LOW 200306619	A1PIEISS-1-X	A1PIEISS-1-X		URANIUM	0.4	ug/L			27-AUG-97	B
RAD 200306620	A1PIEISS-1-X	A1PIEISS-1-X		TECHNETIUM 99	-1.8	pCi/L	U		27-AUG-97	B

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Release Number: 1000014869 Component: %-LR Submission ID: % Project Name: %
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END OF REPORT

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Total Uranium Analytical Results
From A1 P1 East Impacted Stockpile
(Amalgamated Data Set)

East Stock

1040

A1P1 WAC DATA

SAMPLE ID	PARAMETER	RESULT and UNITS	QUALIFIER
P17-22C-328569	Uranium, Total	10.195 ppm dry	-
P17-22C-328569-D	Uranium, Total	9.895 ppm dry	-
P17-22C-333523	Uranium, Total	5.997 ppm dry	-
P17-22C-338477	Uranium, Total	21.889 ppm dry	-
P17-22C-342402	Uranium, Total	8.096 ppm dry	-
P17-22C-365351	Uranium, Total	7.197 ppm dry	-
P17-22C-374331	Uranium, Total	18.891 ppm dry	-
P17-22C-375444	Uranium, Total	10.195 ppm dry	-
P17-22C-388229	Uranium, Total	2.699 ppm dry	U
P17-22C-390453	Uranium, Total	20.39 ppm dry	-
P17-22C-392469	Uranium, Total	20.69 ppm dry	-
P17-22C-397599	Uranium, Total	9.295 ppm dry	-
P17-22DT-396488	Uranium, Total	44 ppm dry	NV
P17-40C-355625	Uranium, Total	18.291 ppm dry	-
P17-40C-368702	Uranium, Total	18.291 ppm dry	-
P17-40C-368702-D	Uranium, Total	5.697 ppm dry	-
P17-34C-978027	Uranium, Total	3.448 ppm dry	U
P17-34C-978027-D	Uranium, Total	7.496 ppm dry	-
P17-40C-074005	Uranium, Total	13.194 ppm dry	-
P17-40C-120001	Uranium, Total	8.996 ppm dry	-
P18-12W-990217	Uranium, Total	63 ppm dry	NV
P18-20W-361342	Uranium, Total	52 ppm dry	NV
P18-40W-384700	Uranium, Total	43 ppm dry	NV
P19-20W-223080	Uranium, Total	44 ppm dry	NV
Q16-33W-471222	Uranium, Total	46 ppm dry	NV
Q17-10W-546402	Uranium, Total	58 ppm dry	NV
Q16-34W-740227	Uranium, Total	63 ppm dry	NV
Q17-12DT-645580	Uranium, Total	23 ppm dry	NV
Q17-30W-495847	Uranium, Total	61 ppm dry	NV
Q18-40W-834203	Uranium, Total	49 ppm dry	NV
Q18-10W-551380	Uranium, Total	62 ppm dry	NV
P17-30W-656861	Uranium, Total	45 ppm dry	NV
P17-30W-775701	Uranium, Total	29 ppm dry	NV
Q18-30W-793629	Uranium, Total	38 ppm dry	NV
Q19-10W-799297	Uranium, Total	45 ppm dry	NV
Q19-12DT-708034	Uranium, Total	50 ppm dry	NV

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SAMPLE ID	PARAMETER	RESULT and UNITS	QUALIFIER
Q19-12DT-741128	Uranium, Total	32 ppm dry	NV
Q19-14DT-784204	Uranium, Total	57 ppm dry	NV
Q19-14DT-791236	Uranium, Total	45 ppm dry	NV
P19-40W-392440	Uranium, Total	33 ppm dry	NV
Q19-30W-535673	Uranium, Total	27 ppm dry	NV
Q19-40W-853587	Uranium, Total	33 ppm dry	NV
Q20-10W-790904	Uranium, Total	35 ppm dry	NV
Q20-20W-817855	Uranium, Total	42 ppm dry	NV
Q20-21DT-812952	Uranium, Total	44 ppm dry	NV
Q20-22DT-010907	Uranium, Total	37 ppm dry	NV
Q20-22DT-012920	Uranium, Total	45 ppm dry	NV
Q20-22DT-018959	Uranium, Total	46 ppm dry	NV
A1P1E1SS-A-1-R-V	Uranium, Total	24.5 ppm dry	
A1P1E1SS-A-2-R-V	Uranium, Total	19.3 ppm dry	
A1P1E1SS-A-3-R-V	Uranium, Total	10.6 ppm dry	
A1P1E1SS-A-4-R-V	Uranium, Total	13.1 ppm dry	
A1P1E1SS-B-1-R-V	Uranium, Total	15.1 ppm dry	
A1P1E1SS-B-2-R-V	Uranium, Total	15 ppm dry	
A1P1E1SS-B-3-R-V	Uranium, Total	18.1 ppm dry	
A1P1E1SS-B-4-R-V	Uranium, Total	23.7 ppm dry	
A1P1E1SS-C-1-R-V	Uranium, Total	15.3 ppm dry	
A1P1E1SS-C-2-R-V	Uranium, Total	18.2 ppm dry	
A1P1E1SS-C-3-R-V	Uranium, Total	14.1 ppm dry	
A1P1E1SS-C-4-R-V	Uranium, Total	12.2 ppm dry	
A1P1E1SS-D-1-R-V	Uranium, Total	16.6 ppm dry	
A1P1E1SS-D-2-R-V	Uranium, Total	14.6 ppm dry	
A1P1E1SS-D-3-R-V	Uranium, Total	9.47 ppm dry	
A1P1E1SS-D-4-R-V	Uranium, Total	27.8 ppm dry	
A1P1E1SS-E-1-R-V	Uranium, Total	13.5 ppm dry	
A1P1E1SS-E-2-R-V	Uranium, Total	12.2 ppm dry	
A1P1E1SS-E-3-R-V	Uranium, Total	10.5 ppm dry	
A1P1E1SS-E-4-R-V	Uranium, Total	2.47 ppm dry	
A1P1E1SS-F-1-R-V	Uranium, Total	11.35 ppm dry	
A1P1E1SS-F-2-R-V	Uranium, Total	8.77 ppm dry	
A1P1E1SS-F-3-R-V	Uranium, Total	7.68 ppm dry	
A1P1E1SS-F-4-R-V	Uranium, Total	26.9 ppm dry	

PZ

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Statistical Analysis of Total Uranium Results
From A1PI East Impacted Stockpile

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TOTAL URANIUM RESULTS FROM A1PI EAST IMPACTED STOCKPILE

Original Data

	Normal	LogNormal
N	48	48
Min	2.699	0.993
Max	63	4.143
Mean	31.50	3.184
Mean(LN)	--	34.35
Std Dev	18.71	0.839
95th P	62.3	96.1
99th P	75.0	170.2
99.9th P	89.3	323.2
99.99th P	101.1	547.8

Original Data Plus Supplemental Data

	Normal	LogNormal
N	72	72
Min	2.47	0.904
Max	63	4.143
Mean	26.01	2.994
Mean(LN)	--	27.23
Std Dev	17.46	0.788
95th P	54.7	73.0
99th P	66.6	124.8
99.9th P	80.0	227.9
99.99th P	91.0	374.0